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ESTABLISHED 1848

RURAL  
WORLD

# COLMAN'S RURAL WORLD

DEVOTED TO AGRICULTURE HORTICULTURE HORSES CATTLE SHEEP SWINE

Established 1848.

ST. LOUIS, MO., WEDNESDAY, NOVEMBER 21, 1900.

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## COLMAN'S RURAL WORLD

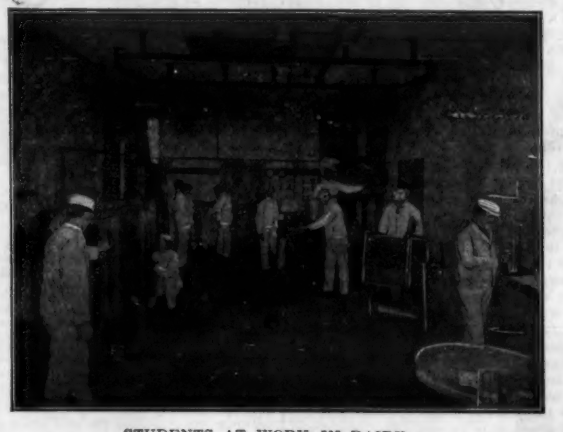
**NORMAN J. COLMAN, Editor.**  
**LEVI CHUBBUCK, Editor.**  
Published weekly at 721 Olive St., Rooms 1213, 1214, 1215 and 1216 Chemical Building, corner Olive and Eighth Sts., St. Louis, Mo., at one dollar a year. Eastern Office, Chalmers D. Colman, 520 Temple Court, New York City.  
Letters should be addressed to COLMAN'S RURAL WORLD, 721 Olive St., St. Louis, Mo. Advertising rates furnished on application. Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the United States.

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**WILL IT PAY?**  
RURAL WORLD readers are fully cognizant of the fact that this paper is a persistent advocate of agricultural education. Why? Because we believe that the best interests of this land that we all love are very largely dependent for perpetuity on the existence of an intelligent and prosperous farming population. Not only do the products of the farms of these United States constitute by themselves in some form or other a large measure of this country's transportation, manufacturing and commercial business, but all who are engaged in other lines of industry that are not directly connected with agricultural products are fed and clothed by these products. Thus the farmer's work touches all, and all are deeply interested in whatever will make that work the most effective as to quantity and quality of product. And so it has passed into proverb that "he who makes two blades of grass grow where only one did before is a benefactor." To be able to produce the two blades of grass in place of one and to improve the quality as well as the quantity requires intelligence, knowledge, education; and that is what we urge our readers to acquire to the highest possible extent and from all possible sources—from one's neighbors, by observation, reading, attending farmers' institutes or the agricultural college—it is all education, only varying in extent.

But, says a young man (we are glad to have the young men's attention); there is little hope of changing the ways of the old men, "why should I be called on to be a benefactor any more than James Beckwith, our neighbor's son, who is reading law, and other boys of the neighborhood who have left the farm?" In reply to this let us first state this proposition, that needs no proving: No man worthy of mankind who is not imbued to some extent with a desire to do good to humanity; and every one, no matter what is his life work, can and should do good. But it is equally as evident that self-interest must be considered, and one is perfectly justified in considering what will be to his own best good. Indeed, he who does well by himself does the world good; man's best, or worst, product is himself. The question, then, resolves itself into this: "Will it pay me to spend time and money in getting an agricultural education?" By "agricultural education" in this connection we mean the knowledge that is acquired by taking a systematic course of study in agriculture. If personal testimony is admissible, the writer, who is a graduate from the Missouri Agricultural College, can testify, in answer to the question, that it does pay, and pay well. And we want to remark right here that there has been so much improvement at the college in equipment and facilities for instruction since the time when we were a student there, that if it paid then to attend it ought to pay 200 per cent better now. There has been, too, during that period, a marked advance in agricultural science; the investigators have added very materially to the fund of information available to the teachers and these latter have acquired much greater skill as imparters of knowledge.

Then there is another and very distinct advantage that the young man of to-day who contemplates agriculture as a life work has over the young man of 20 and even 10 years ago. There is now a much higher and more general appreciation of the fact that farming is work that requires extended and systematized information, and a trained mind for its most successful conduct. This is apparent in the demand that is made on the leading agricultural colleges for graduates to take charge of creameries, cheese factories, dairy herds, stock breeding herds, general farms and other lines of practical work, to say nothing of the calls for instructors.



STUDENTS AT WORK IN DAIRY.

and experiment station workers. Our normal schools are putting instruction in agriculture into their curricula that they may prepare their graduates to meet the demand for this instruction that is beginning to come from the rural schools, and that will soon be overwhelming.

Hence it is that we do not hesitate to advise any young man who is casting about for a life work to look carefully over the agricultural field. To the young man who has already determined to engage in farming, and may even have entered the ranks as an owner or renter of a farm, but who is conscious that his knowledge of the business is too limited, we urge that he be not content in this age, when so much is dependent on mental force and knowledge, to plod along hampered by lack of training, but that he determine to get that which will enable him to make dollars where otherwise he would make dimes.

We have taken pains to present on this page an outline of what the Missouri Agricultural College is prepared to do for the young men of the state whose time and money are too limited to permit them to take a full course extending through three or four years.

**THE SHORT COURSE** provided by the Missouri Agricultural College should be taken advantage of by hundreds of young men. We trust parents will read the outline which follows and counsel with their sons about spending a portion of the winter at Columbia.

The next session begins January 1, 1901, and ends March 22.

The Agricultural College is well equipped for illustrating the principles set forth in the lectures or those gleaned from the text books. The members of the faculty are men of experience in both theory and practice, and are deeply interested in the welfare of the young men who place themselves under their tutelage. Following will be found a brief description of the work offered the short course students in the several departments.

**AGRICULTURE.**  
**PLANT LIFE.**—The lectures in this course treat of the following: The structure of plants, and the use of their different parts—roots, stems, leaves and flowers; how plants gather their food from the earth and air; how they grow and reproduce their kind; how useful plants are modified and improved by selection, and how harmful ones, especially weeds, may be controlled or eradicated; different forms of seeds, how they are carried by winds, water or animals, and the consequent spreading of both useful and noxious plants; pollination of flowers, and the uses of bright colors, scents, etc., in attracting bees and other pollen-carrying insects.

The life and function of the cell; the absorption of incombustible inorganic matter and its conversion into the body of the plant itself; assimilation, conversion, transportation and storage of organic matter; the nature of the energy which lends itself to the performance of this work.

**CHEMISTRY.**—Soils, formation, classification and properties; the mineral constituents of plants and their bearing on plant growth; manures and fertilizers.

**LECTURES ON SANITARY SCIENCE.**—Farm hygiene, air, water, food, whole-

some and injurious to health; impurities and adulterations in food; the means of guarding against preventable disease.

**SOILS AND CROPS.**

**THE SOIL** in its relation to plant growth is carefully studied. Too much importance cannot be given to a knowledge of the physical properties of soils. Such questions as the loss of soil water due to evaporation during periods of drought, and the rendering of plant food now available, both accomplished by proper methods of tillage, are of vital importance to the farmer. The causes of soil exhaustion are explained, and remedies for restoring fertility offered.

The growth, cultivation, harvesting and uses of each farm crop are discussed. Considerable attention is given to the new forage crops, such as rape, cow peas, etc.

**ENTOMOLOGY.**—Two courses are given in the subject of entomology, both of them being entirely economic and practical, and dealing only with the injurious and beneficial forms of insects and the methods of combating them.

In the short course in Agriculture the student receives ten lectures, covering, as far as possible, in ten hours, the more common and important injurious forms found on the farm, either in the live stock or in the field crops. Specimens of the insects are shown, and a brief outline of the various stages of the insect, together with its work, and the methods of combating it, are given. A general survey of the principles of controlling insects, the making of the various spray formulas for different insects, and the use of various machines for the application of the same are discussed.

In the short course in Horticulture, the student receives six times as many lectures—namely, sixty—as are given in the course in Agriculture. With sixty hours' work devoted to the study of injurious and beneficial insects, the student in the short course in Horticulture becomes familiar with all the important groups of insects, and by the constant use of the specimens themselves, learns to recognize them, to know them in their various stages, and to distinguish the injurious and beneficial ones. The work done by the different insects likewise becomes familiar, and the entire life-history and habits of the injurious and beneficial forms found in the orchard, garden, or farm plants and domesticated animals are thoroughly understood. The various methods of controlling these insects are thoroughly discussed, and the preparation and use of all the different insecticides and combination of insecticides, as well as the many methods of application by various machines and devices, are made familiar to the student. In all, the life histories, habits and methods of controlling about 300 injurious and beneficial insects are given, together with instruction in the methods of determining insects that may be unknown to them.

**THE COURSE IN HORTICULTURE** is designed to give practical instruction to those who are especially interested in orcharding, nursery work, vegetable gardening, etc. The forenoon is devoted to lectures upon various horticultural topics and the afternoon to practical lessons in the orchards, grafting and propagating rooms, hot beds, etc.

During January Hon. L. A. Goodman, Secretary of the State Horticultural Society, and one of the most successful practical orchardists in the country, will lecture every morning upon orcharding in Missouri. He will tell what varieties of fruit are best adapted to the various soils and locations in the state; how to prepare the land, plant, prune, cultivate and manage the orchard; how to gather and market the fruit and many other details connected with successful fruit growing. In the afternoon practical instruction will be given in the orchards, vineyards and small fruit plantations of the experimental grounds. For instance, the class will go to the vineyard and each student will prune grape vines under Mr. Goodman's instruction until he can do the work rapidly and well. What has been accomplished, pruning apple trees will be taken up and pursued every afternoon until each student is able to prune the trees of various ages from those to be transplanted to the old bearing trees. In this way peaches, pears, plums, cherries and small fruits are pruned and studied until a correct idea can be gained of how each should be managed. Lessons will also be given in studying varieties of apples, in grading and packing them for market, in building storage cellars and evaporators, etc.

**LANDSCAPE GARDENING.**—This subject will be taught during the first half of January. Lectures will be given on the laying out and planting of home grounds, making drives and walks, planting and management of trees, shrubs, vines and flowers; what kinds to plant in the various sections of the state, and how to make the home grounds more attractive.

**FLORICULTURE.**—Ten lectures will be given upon this subject during the last half of January. The propagation of flowers from cuttings, seeds, bulbs and layers will be considered, as will also mixing soils, potting, watering, managing temperatures, etc.

**NURSERY WORK.**—During February, Hon. M. R. Murray, President of the State Horticultural Society, and a leading nurseryman and fruit grower, will give instruction in nursery work. A lecture will be given every morning upon plant

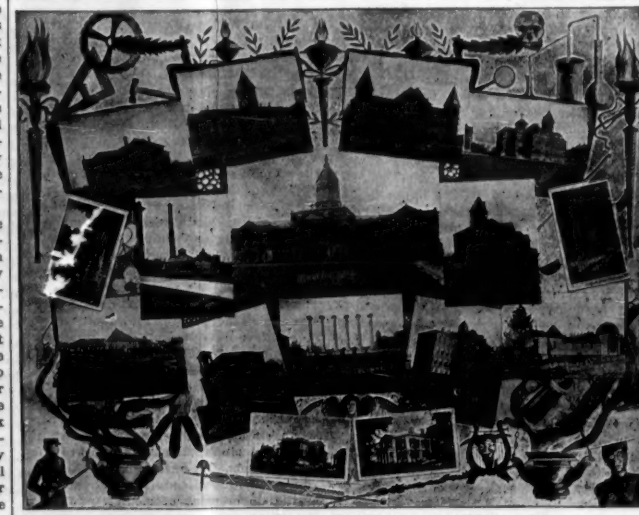
tural subject, approved by the professor of horticulture, and a prize of \$15 for the second best.

**ANIMAL HUSBANDRY.**  
**STUDY OF BREEDS.**—The present status of the live stock industry in America warrants the College in offering a thorough and complete course in animal husbandry. The work begins with a study of the history and characteristics of the breeds of live stock. Both the desirable and the undesirable qualities of a breed are pointed out and comparisons made, one breed with another.

**STOCK JUDGING.**—In connection with the class room work the students meet the instructor at the farm barns where good specimens of cattle, sheep, horses and swine are available for examination. Each student, with score card in hand, makes a study in detail of the animal in question and marks on the scale of 100 for perfection, whatever, in his estimation, the animal deserves in each particular. The cards are signed and handed to the instructor, after which the good and bad points of the animal are openly discussed.

After becoming familiar with the scoring of individuals, the student is given what is called competitive judging. Several animals of a given class are brought into the judging room and placed side by side, each distinguished by a number card. The student carefully examines each animal, makes his comparisons and ranks them, first, second, third, etc., according to his own judgment. He states his reasons for so ranking them, and hands in his report. After the reports are all in the instructor makes the awards and explains why he places one animal above another.

The college endeavors to meet Missouri conditions by giving special attention to the judging of beef cattle. No institution offers better advantages in this respect. Besides the college breeding stock and the large number of steers being fed for experimental purposes, the college has several herds of pure breeds from different parts of the country, which are being inoculated for Texas fever. There are also extensive feeding establishments near Co-



THE UNIVERSITY OF MISSOURI, COLUMBIA, MO.

lumbia where may be found excellent specimens of both fat cattle and feeders.

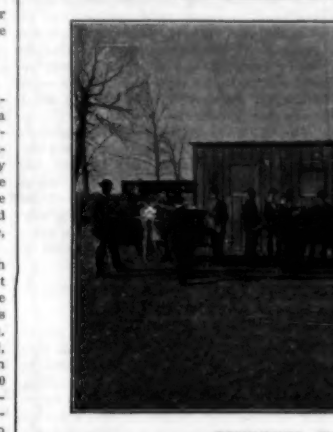
The work in stock judging is of great practical value to the young farmer since it trains his judgment and enables him to make wise selections when purchasing farm animals, either for breeding stock or for feeding purposes. It also fits him for judging at the fairs and stock shows when called upon to do so.

**PRIZES IN STOCK RAISING.**—This winter for the first time, a cash prize of \$25 will be given the student showing the greatest proficiency in stock judging, and another prize of \$15 to the student making the next best record. These prizes are offered by the Missouri Board of Agriculture and will, no doubt, be an incentive to very earnest and efficient work in stock judging.

**STOCK BREEDING.**—The lectures on stock breeding cover such subjects as the laws of heredity, variation, selection, in-and-in breeding, fecundity, atavism, etc. The great improvement that has been brought about in the different breeds has been accomplished by observing these principles. The student will be given practice in tracing pedigrees and will also be made familiar with the use of herd books. This training is invaluable to the prospective breeder of blooded stock.

**STOCK FEEDING.**—In this work the student is made familiar with the composition and digestibility of various food-stuffs. He learns how they are prepared and fed to the best advantage whether for beef or milk, mutton or wool. He is also made familiar with the composition of the different classes of farm animals. He soon becomes familiar with such terms as protein, carbohydrates, balanced ration, etc., terms so often used in articles on feeding, and so confusing to the average reader of agricultural journals.

**VETERINARY SCIENCE.**—The principles of this special course is to give such instruction as will enable the students, on their return to the farm, to prevent in large measure those diseases of the farm animals that result from improper feeding and handling, and from lack of proper sanitary conditions. But



STUDENTS JUDGING STOCK.

In addition to this the course includes sufficient instruction in the diagnosis and treatment of disease, to enable the student in cases of emergency (and where competent veterinary advice cannot be had) to treat in a rational way the simple internal ailments, and to perform with some skill easy surgical operations.

The lectures will be illustrated by charts, models and preserved specimens of diseased animals. A special feature of the course is the practical examination for soundness, determination of age, the common diseases of the internal organs as colic, indigestion, constipation, diarrhoea, inflammation of lungs and trachea, retention of urine, inflammation of the udder, etc. Surgical diseases, as sprains, spavin, curbs, nail pricks in foot, barbed wire cuts, fistula, bad teeth, etc. Also instruction in castration, spaying and caponizing.

Contagious, infectious and parasitic diseases, as strangles (distemper), glanders, black leg, tuberculosis, anthrax, hog cholera, stomach and intestinal parasites, trichina, lung worms, scabs, lice, etc.

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determining best depth and size of tile to effect thorough drainage. Two afternoons are given to practical work in the field. **CARPENTERING.**—The instruction will begin with a series of exercises, each of which is intended to make the student familiar with the uses of certain tools. An industrious student who completes the course will be able to perform easily and exactly ordinary carpenter's work on the farm.

**BLACKSMITHING.**—This course is designed not only to give the student a knowledge of the methods of blacksmithing, but also considerable skill in the use of tools for plain ironwork. Some knowledge of woodwork and ironwork is of great value to the farmer. The shop with its equipment—all new—cost about \$48,000.

**BUSINESS FORMS AND ACCOUNTS.**  
It becomes more and more apparent even to farmers themselves that business principles are not out of place in the management of a well conducted farm, and a little time given to the study of these principles is time well spent in the very practical course to which three months of the year are given.

To the end that our short course students may be enabled to record in a business like and systematic manner the various business transactions of everyday life, fifteen hours of the time is devoted to the study and practice of accounts. Beginning with the simplest form of business papers, namely, letters, instruction passes from them to bills, statements, checks, notes, drafts, with abundant practice in each, followed by criticisms and suggestions.

Accounts follow, beginning with cash and personal, which lead directly to an explanation of the method of single entry bookkeeping, then the writing up of a complete set of single entry books, closing the same in an orderly and business like manner.

More account study then follows, as wheat, corn, oats, poultry, farm and dairy produce, expense, loss and gain.

At the completion of the course, it is expected the student will know how to keep his own accounts, those with his hired assistants, and how to make his own record of all transactions, knowing from year to year whether his farming operations have resulted in loss or gain.

The positive knowledge afforded by an accurate set of accounts would often place the result of the year's work on the farm on the right side of the ledger, when guess work carries it to the left.

**ADVANTAGES IN COLUMBIA.**—Columbia is in every sense of the word a college town. Besides the University, there are two female colleges, Christian College and Stephens College, and Columbia Normal Academy. A short residence in a town where pervades such a college atmosphere will certainly benefit any young man whose environment has been different.

Students are privileged to attend any of the churches in the city, and are also given opportunity to hear the many able platform lecturers who come to Columbia.

**SALARIED POSITIONS FOR STUDENTS.**—Of late there has been a demand for agricultural students to act as farm managers, herdsmen, gardeners, etc., at good salaries. The college thus far has received more calls for such young men than can be supplied.

**EXPENSES OF THE COURSE.**  
The student is expected to pay no tuition or laboratory fee. An incidental fee of \$5 is the only charge of any kind.

Good board and room, including all furnishings, can be had in Columbia for from \$12.75 to \$14 per week. The expense of living in one of the dormitories is still less. Students preferring such accommodations are should apply at once, as the number of unoccupied rooms is very limited.

Anyone desiring further information concerning the course should write H. J. Waters, Dean of College of Agriculture, or H. R. Smith, Prof. of Agr., Columbia, Mo.

VETERINARY CLINIC.















C. J. Hamlin celebrated his 81st birthday on the 8th inst., and to all appearances is good for the century limit. In 1846 he moved from East Aurora to Buffalo and has resided there ever since. He visits Village Farm every Wednesday and Saturday, calling the trips his picnic days. Mr. Hamlin says that the two-minute trotter is near at hand, possibly in 1901, if The Abbot, 2:00½, should be trained by Mr. Geers.

"PONIES, PAST AND PRESENT," is the title of a book lately issued from the press of Vinton & Co., 9 New Bridge st., London, Eng., that will please those interested in this class of stock. The book is by Sir Walter Gilbey, Bart., who is also the author of "Horses, Past and Present" and other books on horses. In the introduction to Ponies, Past and Present, the author has given a fund of interesting information and in the chapters that follow are described in a pleasing style the leading types of ponies that are bred in England. The book is handsomely illustrated and well printed.

Kansas City, Kan., gains a new performer in Flossie A., 2:24½. Old Lady Star has a yearling colt by Grattan, 2:13, that is considered a most promising youngster. He should give his dam another standard performer.

"Don't hear so much talk about the horseless age as you did a year or two ago, do you?" asked the proprietor of one of our fashionable boot stores, says the New York "Times." "Seems as if it were only yesterday that I heard people say that the day of the horse was numbered. Well, it has not yet come into oblivion. Now, here's a leaf out of my own business. Never since I began business have I had such a demand for riding boots as I have this season, while, on the other hand, the demand for bicycle shoes has fallen off a little more than 25 per cent. I should say that the riding season is one of our principal customers. They have the riding fever the worst way, and it looks as if there would be a lively season for the riding academies.

The benefits coming to the trotting horse business in its various branches from matinee and speedway associations throughout the country are truly inestimable. These interests have opened up a market demand for speed which places a ready cash value on every speedy trotter and pacer, the value being commensurate with the merits of the animal—the greater the merits the greater the value. The demand for track horses is only for the best, the capable of winning in their classes, and they leave out a great many horses and geldings. The matinee and matinee drivers come along and buy up this latter class, and thus a ready market is found for all horses possessing developed speed and soundness sufficient to carry them a fast quarter or half.

**Horse Owners! Use**

**GOBEAU'S**

**Caustic**

**Balsam**

*A Safe Spray and Powerful Cure*

The Safest, Most Effective and Most Taken notice of all liniments for mild or severe action. Removes Blisters or Blisters from Horses and Cattle. **SUPERSOFT ALL BUTTERY** **DR FIRMING** Impassable to produce cure or blisters. Both bottles sold to warranted to give satisfaction. Price **1.50** per bottle. Sold by druggists, or sent express, charges paid, with full directions for its use. Send for descriptive circular.

**THE LAWRENCE WILLIAMS CO., Cleveland**

tion. A study of successive futurities and their winners not only reveals the steady progress which is being made in hotting speed production, but freshens the mind on the blood lines which are most likely to result in the production of Futurity winners. At once it becomes a remarkable fact that of the eight Futurity winners all are direct descendants in the male line from George Wilkes except two, Boralma, by Boreal, and Peter the Great, by Pilot Medium. The first winner (in 1888)

fly Wilkes, and the best time made in the race was 2:14. Then came the bay filly Thorn, by Wilkes Boy, who won in 1897, the best time, 2:12½. In 1898 and 1899, the prize fell to others than those of the Wilkes family Peter the Great, by Pilot Medium, winning in 1898, and Borama, by Boreal in 1899, he being the only descendant so far of Electioneer to win the Kentucky Futurity. This year—last week—the blood of George Wilkes again asserted its wanton supremacy, and Fereno, bay filly, by Moko, brother to Bumps, 2:09½, son of Baron Wilkes, dam by Simmons, romped away with the rich prize, lower-

**Editor RURAL WORLD.**  
One of the best crop years ever seen in Southwest Missouri is drawing to a close. Farmers are getting ready for winter, and I see the advertising space of the RURAL WORLD is filling up. One of the drawbacks to strawberry raising has been the growth of chess in the patches, caused from using wheat straw mulch. Some of the growers are hunting around for substitutes. Mr. Jerome of Peirce City renews his beds by plowing up and planting stock peas. After cutting his crop of peas, he plows the ground in the fall for spring planting, and thinks his ground is in better shape than in any other treatment. Some of the best of the successful growers of Barcozio, Mo., almost out of the business. Three shafts are now down to paying mineral, and the machinery will soon be crushing the rock and separating the Jack that has made so many citizens of Southwest Missouri

mare is now in foal to Piano, son of Adino, 2:31, that has now one standard trotter and three pacers at seven years of age. Adino's dam is Hattie Ethan, by Ethel Wilkes, 3d dam Lena, by Indian Chief 532, by the show horse Blood's Black Hawk. Piano's dam is a McGregor, and he has the McGregor color. Mr. Hood has a chestnut gelding by Ben McGregor 16 hands high, and his dam is by Meadowbrook. This is a nice driver, and would be a good opportunity to make a race horse. A nice yearling colt is his son of St. Ver, by George by Brownell, son of Lumpy, by George Wilkes.

Among his brood mares is a daughter by Pilot Mambino 632, by Mambino Patchen, out of Santa Maria, by Pilot, Jr. A bay colt by St. Ver would make a

190. Another is owned by Mr. Copeeland of the Verona, Mo. bank, and is used strictly as a family animal. While Caldwell owned this mare he bred her to Blue Blackledge, doubling up the Blue Buld blood. He got a very promising pacer, named Gosh, which he bred and is now in foal to George Cootner, Jr., 4188, Mr. Caldwell bought a daughter of Comaront, son of Herschel, out of a daughter of Tom Sprague, 2d dam by Speed Woxey, from Harvey P., son of Harvester; he raised a colt now three years old, owned and in the string of Mr. Mayo at Monett. He is a trotter and wili, I think, trot fast. Mr. Caldwell now owns May Morning, by Resurrection, son of Blue Buld dam Dossie.

The dam of Frank M. 2:20. She is by  
 Bair 1889, son of Bard, and for the last  
 few years has been bred to a non-stand-  
 ing son of Ethan Wilkes, whose dam is  
 by Harrison Chief. Her foals are all  
 fillies, and two of them are doing the farm  
 work. There are in this section of the  
 country several trotting bred horses desir-  
 able anywhere where nice drivers are  
 wanted that can be bought at a little bet-  
 ter than common horse prices. W. F.  
 Wicks, the stock buyer of Pelrice City

What beats him will place a merry clip.  
J. V. Bennett of Mt. Vernon, Mo., owns Monitor Temple, bred by the Colman Stock Farm, and has traded land for a band of brood mares, and will breed the light harness horse in the future. When he gets them home we will try and let the readers of the RURAL WORLD know what they are. There is more interest in the harness horse now than at any time since 1892, and it will probably continue to improve.

**LEGUMINOUS PLANTS FOR MARES.**  
Editor RURAL WORLD: I notice in

being able to get a crop in one season, which we cannot do with clover.

I would also suggest that you publish an analysis of cow peas and soy beans, both green and cured, so that we can see whether or not they contain ergot or other properties that will cause trouble to breeding animals.

ST. LOUIS CO., MO. SUBSCRIBER.


DR. T. E. WHITE says in answer to P. B. Ladd, Ripley Co., Mo., in issue of Nov. 14 in reference to clover pasture and pregnant mares. Clover, cow peas and soy beans are all leguminous plants.

### PERIOD OF EQUINE GESTATION.

The period of gestation with mares is somewhat uncertain. It differs considerably with different individuals, and even the same mare in different years. Eleven months is the time generally given, but the majority of mares will overrun this time. In our experience we have known a mare somewhat advanced in

longer than females, but statistics do not bear out this conclusion. The observations of Dr. W. H. Winter, of Princeton, Ill., covering seventy-two cases, make the average period for males about 241 days and for females 338, the longest being 571 days and the shortest 217 days. Mr. M. A. Brown from thirty foals one year found the average to be slightly greater for males than for females, the following being the average from thirty-two foals: the females were carried longer than the males. He also reports a well-authenticated case where a two-year-old half-blood Percheon filly was bred to an imported Percheon stallion and produced a strong, healthy male foal at just 800 days. A case was reported from Chatham, Co. where a mare which was bred May 7 did not drop

Fists, one Ringbone and two Spavins.  
 Am now treating warts on a horse's head  
 and about the mouth. Enclosed find \$2.00—  
 please send in your Cash, and I will  
 send you what may come to me and I will  
 prove the fact to them. Yours respy.,  
 H. H. SMITH, V. S.


**Look at that Leg**  
 THOROUGHPIN, SPAVIN and RINGBONE  
 Cured with HAMER'S SURE CURE  
 money refunded: also Fists, Polv Evid  
 Founder, Swelled Feet, Scurvy, Scurvy  
 side bone, Curb, Warts, Splint, Collar bone  
 Saddle nose, Sprains or swellings, \$1.00 per  
 bottle by mail. Send for 4c paper containing  
 telling the whole thing, also numerous  
 testimonials. Sold by druggists.  
 H. H. HAMER, Vermont, U. S.

that comes to the forge for the first time to be shod is altogether unacquainted with his entire surroundings, let alone the operation which he is about to undergo. As the grower older and becomes acquainted with those who are handling him in shoeing, and with what is being done to him, he is as much at home as his own stall. The horseowner who cannot control himself when shoeing a horse, especially a young horse, is as much of a bane to the

shoeing forge, and we understand the reason why. There are few of us but know of individual cases where rough treatment of the colt is the conspicuous part of some men's character, but these rough handlers are not successes in life. Handling young horses for shoeing requires but little of that which we should not hesitate to give to any such noble creation as the horse is. A gentle rub on the head, a kind word spoken which assures the inexperienced brute that you are his friend, a free and easy manner of handling the legs and driving on the shoe until the horse becomes accustomed to

There is much of interest in the handwritten history of the chestnut mare, Georgiana, says H. T. White, in the Chicago "Tribune," that won the \$10,000 Charter Oak Stakes for 2:15 trotters at Hartford, in commanding fashion, trotting one of her winning heats in 2:57½, a rate of speed that has not been equaled by trotting mares. When it is considered that thirty days before the Hartford race Georgiana was in the 2:15 class, with no apparent prospect of ever getting out of it; that she had been trained for at least six years by various men and pronounced by the best judges to be a "runner," a rich man who is an owner of some of the best bred horses in the land, but has never had much luck in securing a race winner, had sold her for \$250; and that the mare was the cause of his trainer and driver leaving him—when all this is taken into consideration, it is not surprising that Georgiana's story is to some more interesting than that of the average trotter. To begin with, she was sired by a blind horse. This

stone horses that have tramped the roads of the State and have won a place to the old mare in hand to prepare for the campaign. McDowell was at that time head trainer and driver for John Shultz, the millionaire baker of Brooklyn, N. Y. Now, Mr. Shultz had at one time owned Georgiana and had sold her for \$250. Therefore, when his trainer acted as if the discarded trotter was the best thing in his string there was a chance for friction, and it came. The result was that McDowell and his horse started forth for the campaign with nothing in his string but Georgiana. Albany was where the mare trotted her first race this season, and she was beaten by Nigger Jack. This was no surprise to the turf followers, who had been in the habit of seeing her beaten for several years, but in that race Mc-

eyes at the same day the stallions, Gayton, Charlie Hore and Dare Devil were trotting for their lives, and so slow was the track from recent rains that 2:12½ was their fastest heat. Now Dare Devil and Gayton were known to be about 2:08 horses when at their best, and when the mare could equal their performance on the same day and track she must have class. And when she beat Lord Derby, with him on a trot all the time, and stepped away from him in the stretch with perfect ease, it was another strong argument in favor of all that Lord Derby had claimed for the mare, because Lord Derby had shown by his previous races

argued it was a scratch performance, and that the race at Boston the following week, when some new talent was to be met, would prove them in the right. But at Boston old Georgena won in straight heats, just as she had done at Glens Falls and, although the boys kept arguing she was not of much account, they were forced to admit that she had won one of her heats in 2:00 $\frac{1}{2}$ , and it is not every day a trotter in the 2:15 class can beat 2:15. When that race was over and he heard

Hartford race were as good as 7 to 1 against Georgena. Lord Derby was the favorite, with York Boy a strong second choice, while Alameda and all the others in the field of twelve had good support. That Georgena won the big race and trotted history to a record of 2:37½ in so doing is a thing. She could have done the trick in straight heats had McDowell not been caught napping by Alameda, who beat Georgena through the stretch in the opening mile, but to do so had to trot the final quarter in 30½ seconds. After that McDowell was careful to take his mare away in front and keep her by a safe margin, and in this way had no trouble

All the signs by the roadside and in the air are saying that the horse is among our liveliest idols, says the "American Sportsman." There are no indications anywhere that he is losing friends, but wherever the wonderful genius of modern construction has formed swifter and more economic motors. Our Toledo correspondent gives a forceful illustration of this in his recital of the overwhelming ovation tendered to General Grant at his masterly performance at the fair last Friday. The demonstration was so universal as to cause real surprise among the most optimistic horse lovers. It beat the military demonstration that greeted General Grant the conquering hero, when he returned to laurel crowned to the city of Washington after the close of the war of the Confederate States. And it was entirely spontaneous, a thoroughly costly demonstration.

The legitimate lesson of this remarkable burst of spontaneous enthusiasm is easily

Only to get that head on coin. The horse lover has higher ideals of human life than the miser can live but once. To get the most there is out of the rapidly speeding years is the ideal of the horse lover, and when the horse lover gets it, and is usually on the earth and breathing the odors of health and happiness years after the man of the senseless machine has been put in a machine—has found his home in the cemetery.

The automobile will have devotees, plentifully, no doubt. So had the bicycle, before seven years ago, but now none care to use the bicycle as a recreative motor. It is solely a utility machine.

The horse has not lost his utility, but much of his ancient drudgery has been transferred to the bloodless machine. The horse of pleasure and health and wholesome living is still growing in num-

may "sprain a curb," "start  
a splint," "sprain a cord," "de-  
velop a sprain, thrust, or  
grease hock," etc. They are  
bad, but don't be alarmed.  
Get a bottle or two of

## Tuttle's Elixir

It cures all these troubles and Colic,  
Distemper, Founder, Tetanus, etc.  
It is sold everywhere.  
Used and endorsed by Adams & Keganess.

Dr. S. A. Tuttle,  
Boston, Mass., has described how  
to use it. "I have used it for years, and  
think your Elixir the best I have for all  
these troubles. It is very good, and I recom-  
mend it to my friends." —  
Tuttle's FAMILY ELIXIR cures rheumatism,  
sprains, etc. Kille pain instantly. —  
"Veterinary Circular," Boston, Mass.

Dr. S. A. TUTTLE, 31 Beverly St., Boston, Mass.  
Succor of a called Elixir—now general—  
Avoid all blunders; they are costly. Immense relief if



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**SHORTHORN BULLS**

Baron Thorndale 135,000; Dark Moon of April 80  
bulls by Baron Thorndale and out of dams of Ra  
since 1936, and are great milkers. Call on or add.

**BLACKWATER SHORNS**

Herd headed by the Cruikshank Bull, Orange  
pure Bred. With individual merit the standard.

**CRYSTAL SPRING**

the human family. Operation simple, and get the kind that is always reliable. For and full information, free on request.

**PARKE, DAVIS & CO.**  
BRANCHES: New York City, N. Y.  
Orleans, La. Walkersville, Md.

**FOR SALE!**

At private treaty. Twelve Mares as follows: Three brood mares, standard bred; four mares granddaughters of *Shirley*; *Albatross*; also one standard bred, most all bay and trotting bred. Nine are under saddle. Will sell at a bargain on account of my age and poor health.

**S. B. CLARK, Index, Mo.**  
B. R. station 4 miles Clark Index, Mo.

**THE TROTTING INDIAN.**

I have never contended that it was necessary for a stallion to be campaigning to a record in order to make him a successful sire, says Hawley in the "Stock Farm." I believe that a young stallion from a line of ancestors in which the instinct to trot has been kept alive by the

degree of speed, he should not hesitate to take the horse to the limit. He was not a racing man, provided he came from a family in which the trotting instinct had been bred. He was not a sportsman, but he was, however, absolutely refuse to patronize an undeveloped horse whose pedigree could not be traced back for several generations. He was not a gambler, and a horse might not be able to sire some speed, but in my mind the chances would be against it. He was not a miser, and he felt justified in taking them. As to the statement that most of the great sire records or none at all, there is more than one way of looking at that. In the days of the great sires, the record was made, and that was a very fast record, although to-day it seems slow. Indeed, it was the fastest record ever made. The great sires, after years of the most severe campaigning, went into the stud and produced a record that was never again established the greatest family of trotters the world has known. Among his horses

benefit they derive from the use of the most  
valuable and reliable medicine known.  
So far, not a single bottle has been re-  
turned, which I think speaks very highly  
for the remedy. Yours truly,  
WALTER WHITFORD.

KENDALL'S SPAVIN CURE.

Millgrove, Columbia Co., Pa., Dec. 18, 1894.  
DR. B. J. KENDALL CO.

Please send me one of your "Treatise  
on the Horse." Within it I will find a  
cent stamp to cover postage. I have  
hoped which I very much value; he had  
Spavin of the worst kind; he is entirely  
cured now. I only used two bottles  
of your Kendall's Spavin Cure; it is the be-  
st in the world.  
Yours truly,  
CHAS. BEAVER.

Book as soon as possible

Stock for sale at all times  
at reasonable prices.  
Parties met at train. Farm  
two miles out.  
TELEPHONE NO. 90.

**BULLS FOR SALE**  
 Bulls at \$200. or will trade him for heifers. Also 6-year-old  
 Monday and Secret. These straws have been in the hands of  
 L. G. JONES, Towanda, Ill.

**THORNS!** F. M. MARSHAL, Prop.  
 BLACK WATER,  
 Cooper County, Mo.  
 Here, by Godsy. Females are of pure Scotch an  
 Young stock of both sex for sale.


**YOUNG SHORTHORNS**

sale to perform. Specify P. T. Bred Stallions  
by all druggists. Write us for literature.

**PANY, Detroit, Michigan.**  
Kansas City, Mo., Baltimore, Md., New  
York, N. Y., and Montreal, Que.

**TROTTING BRED MARES  
TO LET.**

From ten to fifteen good standard  
bred Trotting Mares, sound, good  
color, and good breeders, to be let  
to one man for five years, dividing  
the foals equally between them  
yearly. Cannot divide in smaller  
lots. A good trotting stallion, if de  
sired, can go with the mares. A loca  
tion on some farm, near some rail  
road running out of St. Louis, and  
within 150 miles of said city, pre  
ferred. No one need make applica

 where. Terms reasonable. Write before claiming. **W. W. O'Brien**, Platter's Sale Stable.

**Box 856, Chillicothe, Mo.**

**R. L. HARRIMANN,**  
Live Stock Auctioneer, Bunton, Mo. Sales made everywhere. Lifetime devoted to live stock. Up-to-date on every side of the business. Selling for best breeders in the country. Terms low. Write before making dates.

**JAS. W. SPARKS,** Live Stock Auctioneer, Marshall, Mo. Have been and am now booked for the best sales of cattle, hogs and horses held in America. Terms low.

**J. WEST JONES, LENOX, IOWA,** and  
**CAREY M. JONES, DAVENPORT, IA.**  
IOWA'S LIVE STOCK AUCTIONEERS.  
Write before claiming dates.

**Shorthorn Cattle,**

**TRADE MARKS  
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A dark, vertical, textured strip, possibly a book binding or a piece of fabric, with a lighter, textured strip on the left side. The dark strip has a fine, vertical texture and a small, light-colored mark near the top. The lighter strip is also textured and appears to be part of the same material.



## Home Circle.

Written for the RURAL WORLD.  
AUTUMN.

The golden sun in splendor sets  
O'er peaks and fiery parapets  
And scarlet leaves are fire-sparks fly  
Like clouds of winging birds on high!

Wandering winds whistle shrill and sharp  
As winter tunes its plaintive harp  
And rustling corn its music keeps  
Like strains from the murmuring deep!

Oh, Autumn, with your wealth of gold,  
Half your charming worth is told;  
Like flaming worlds you paint the scene  
And change to fire the living green!

S. F. GILLESPIE.

Written for the RURAL WORLD.  
THE FARM HOME KITCHEN.

I have been wondering how one can carry through a sustained discussion upon any subject without a too frequent use of the alphabet has always been in my way when writing for publication, and it is "home in upon me," as Quakers say, that there are many RURAL WORLD contributors who might (if they would) furnish me valuable "pointers" on this important subject. "Come one, come all," tell me how to avoid this too frequent repetition of that objectionable capital "I." The very sight of it is hateful and invariably causes me to "slidetrack" before I am fairly commenced, and even now—"where am I at?" Witness the impossibility of adhering to any sensible subject with "I" in the foreground.

Happy homes with healthy, contented, intelligent inmates are the surest guarantee of the assured moral progressiveness of a nation; and there seems no better place to look for them in the highest degree of culture and perfection than on the farm. The surroundings are—or may be—cheerful, pleasant and beautiful; the food abundant and of the best of its kind, fresh from field, garden and orchard, well prepared and healthful. The children are well trained, respectful, obedient and industrious; eagerly enjoying those pursuits and pleasures that help in the development of noble men and virtuous, cultured women.

It is then doubly important that the foundation of the home—the kitchen—should be conveniently arranged and rightly adapted to the individual needs of the presiding genius—the cook. It is of the utmost importance that the arrangements should be convenient and that the furniture both in and around the home cooking utensils are so cheap it is folly to waste time, strength and temper in trying to "get along" without those labor and time savers which may be so cheaply purchased.

While a convenient and sensibly furnished kitchen is one of the chief points in home making, in my opinion a good vegetable and fruit garden conveniently near is a most important adjunct. When the farmer, dear editor, takes you out to look at his fine herd of Shorthorns, or that beautiful field of wheat, or the convenient new barn, or the well filled silo, just ask him where the vegetable garden is located. Get him to tell you how much time he spends on his strawberry patch (in his mind), and if he has cut the old canes out of the blackberry bushes. Nine out of ten farmers will say: "Oh, the women folks 'tend to the garden; that is too put-terin' kind of work for me." And sure enough, in the spring of the year we may see the home mother hurrying with her morning work in the kitchen that she may steal a few hours of time to work in the garden. She is surely the "woman with the hoe," and small wonder that the lines of care deepen on her once smooth cheeks as she bends over the garden. And when the husband comes home, she is the "woman with the hoe," and small wonder that the lines of care deepen on her once smooth cheeks as she bends over the garden. And when the husband comes home, she is the "woman with the hoe," and small wonder that the lines of care deepen on her once smooth cheeks as she bends over the garden.

Too little attention is paid to the proper ventilation of kitchens; and the cellar also, whether beneath the house or not, should receive a due amount of attention in this respect. It is a matter of course that housekeepers are reasonably clean and particular about their cooking and general housework; and that the utensils used in kitchen work are kept bright and shining and sops and other refuse carried to a respectful distance before being emptied. It is much cheaper to exercise care and common sense in raising the lower sash about one inch and lay beneath it a strip of board. This leaves a space between the two sashes through which the pure air may enter. It is almost needless to state that a supply of pure air and an abundance of good water are as much necessities as a well-lighted fire, and that a small kitchen is much more convenient than a large one, although even that has its drawbacks, as the whole family are inclined to congregate "where mother is." While this is a respectable and pleasant yet there is such a thing as the room being too crowded for rapid work, and it is anything but agreeable to have every inch of available space around the cookstove occupied by irresponsible, hungry people, while the cook, tired and perhaps cross, must reach in between or over their heads to attend to things on the stove; or between their feet to see if the food in the oven is baking.

A convenient store room or pantry is a necessity and to be really convenient should be provided with plenty of shelves and drawers; also with a cupboard with one side opening into the kitchen. There should also be drawers opening both ways to save time and extra steps, and a lamp so arranged as to shine into both kitchen and store room. The kitchen sink should be fitted with a corrugated draining board, and beneath it may be placed a row of hooks on which to hang saucers and skillets. This should not be inclosed, for sanitary reasons.

A cabinet for spices, dried fruits, baking powder, extracts, etc., should be convenient without your assistance, but have always made a strong effort to turn the attention of legitimate housekeepers in this direction. It is being done by honest statements as to real advantages of this region and at great expense. Will you help us in this work by furnishing list of persons to whom it might be well to send suitable printed matter? Address Bryan Vander, G. P. A., Frisco Line, St. Louis, Mo.

lently near the cooking table, which must be built with bins for flour and meal with drawers for mixing bowls and other small cooking utensils. A place should be arranged for potash, ammonia, chloride of lime, muriatic acid, oxalic acid, Pyrexia, compound gold dust, soap for disinfecting, lotions for bruises, salves for cuts and dozens of other things that are needed in a kitchen laboratory. This should be fastened securely to the wall, out of the reach of children, and be kept tightly closed.

The farm home kitchen is not complete without a reliable cook book, or more properly, a variety of cook books; as nearly every one of them has its own peculiar merits. There should also be an account book, a memorandum book, a small slate with pencil attached, a lead pencil, a tablet, some envelopes, a pen with bottle of ink, a bottle of postage, some wrapping paper, a ball of twine and dozens of other conveniences that will suggest themselves to each individual. Have a high chair and a low rocker without arms; a bamboo lounge (or a home-made one); and a stand with a cushioned footstool near by inviting the weary mother to snatch a few minutes' rest between "pointers" during which to read the RURAL WORLD.

In kitchen machinery we now have nearly as wide choice as our fathers and brothers do in farm machinery. Some of it is of great help to those not too prejudiced to see the utility of kitchen help. There is a meat grinder that not only will reduce tough steak to a sense of its own repetition of that objectionable capital "I." The very sight of it is hateful and invariably causes me to "slidetrack" before I am fairly commenced, and even now—"where am I at?" Witness the impossibility of adhering to any sensible subject with "I" in the foreground.

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Written for the RURAL WORLD.  
COUNTRY LIFE.

Country life! How pure and simple those two words sound. What mental picture do we draw when we think of the beautiful country and the life lived therein? It isn't of wealth and grandeur attained only by gold. No! It is far ahead of anything that wealth can purchase. The lessons taught us by nature are the highest and noblest.

Those reared in the country, surrounded by nature's gardens of green grass, beautiful flowers and grand stately trees; the clear, sparkling brooks, the hills and valleys, and the pure, fresh air (God's blessings without number) are the ones that possess the true elements for the up-building of our country.

The leading men in every calling were reared in the country, away from the follies, the vices and the evil influences that exist in our cities.

Not one of our American Presidents was born in the city. What vocation is greater than agriculture? It is the greatest among them all. It is the primitive employment of man, first in time and first in importance. By its advancement, from the rude digging up of the soil by sticks, to its present state, it has created and maintained manufactures, given employment to navigation, and materials to commerce and increased population.

One of the greatest charms country life has in its variety of products, and we can better appreciate this charm by the practice of agriculture. It is an art that progresses with time and is surrounded with the most exhilarating influences. What better calling, young men and even young women, do you want than that of agriculture, with its country joys?

HATTIE WILLIAMS.  
Greene Co., Mo.

Written for the RURAL WORLD.  
TIMELY HINTS ON WEARING APPAREL.

Autumn, the loveliest season of the year, will soon vacate in favor of the "ice king." Already the sacks of winter clothing have been brought out and some of the most beautiful and useful of the season brought out a new pair of "Sunday best" that he had in a drawer with which Mr. Moth had played havoc. I heard the "boss" say something about his best overcoat; there was no occasion to fear, for it had been well looked after.

The time was when heavy flannels were considered necessary for underwear. Then if warm weather came a day or two earlier, how everybody suffered, and severe colds often followed. To be comfortable at all times use medium weight underwear, putting on or taking off heavy outside garments as the weather changes. It seems cruel to put flannels next to the tender skin of a woman, and to most adults they are uncomfortable. By some thoughtful mothers gauze underwear is used under the flannel.

For health's sake there are many things to remember and the most important one is dry feet. Have at all times of the year a pair of over shoes for kitchen floor. Even in summer, when looking after the poultry or doing errands, rubbers are a necessity in the dew.

For headgear get flannellet, tear in squares and hem. Keep them distributed through the rooms; for often someone at the door or gate and the day is too cold to go bareheaded out of a warm room. Just as necessary is the line of sunbonnets in warm weather.

A brother thought for a winter robe he would like a comfort, as the wind penetrates blankets. I made him one after this style: I bought a pair of cotton blankets for five dollars, and cut them in a ball of coarse darning cotton, colored and white mixed, and I got the cotton to match the blankets, and made a comfort. He tried it on a cold day and pronounced it the right style of robe. Just one more suggestion: When going to bed in a cold room or if the bed seems cold, keep your arms under you under the warmth of the body has removed the chill, thus protecting the lungs.

MARTHA.  
St. Clair Co., Ill.

SELF-RELIANCE.

Henry Ward Beecher used to tell this story of the way in which his teacher of mathematics taught him to depend upon himself:

"I was sent to the blackboard and went, uncertain, full of whimpering. 'That lesson must be learned,' said my teacher, in a very quiet tone, but with terrible intensity. All explanations and excuses he took under foot, with utter scornfulness. 'I want that problem; I don't want any reasons why you haven't it,' he would say."

"I did study it two hours." "That is nothing to me. I want the lesson. You may not study it at all, or you may study it ten hours, just suit yourself. I want the lesson."

"It was tough for a green boy, but it seasoned me. In less than a month I had the most intense sense of intellectual independence and courage to defend my recitations."

"One day his cold, calm voice fell upon me in the midst of a demonstration. 'No!' I hesitated and then went back to the beginning, and on reaching the same point again, 'No!' uttered in a tone of conviction barred my progress."

"The next! and I sat down in red confusion. 'He, too, was stopped with 'No!' but went right on, finished, and as he sat down he rewarded with 'Very well.'"

"Why," whimpered I, "I recited it just as he did, and you said 'No!'" "He didn't," said "Yes" and stick to it? It is not enough to know your lesson. You must know that you know it. If all the world says 'No!' your business is to say 'Yes' and prove it."—EX.

MRS. MARY ANDERSON.  
Caldwell Co., Mo.

LIFE'S AFTER WHILE.

Oh, heart of mine be patient;  
Some glad day,  
With all life's puzzling problems  
Solved for aye;  
With all its storms and doubtings  
Cleared away;  
With all its little disappointments past—  
It shall be thine to understand at last.

Be patient, some sweet day  
The anxious care,  
The fears and trials and the  
Hidden snare;  
The grief that comes upon thee  
Unaware—  
Shall with the fleeting years be laid aside  
And thou shalt then be fully satisfied.

Be patient; keep thy life work  
Well in hand;  
Be truest where thou canst not  
Understand;  
Thy lot, whatever it be, is  
Wisely planned;  
Whate'er its mysteries, God holds the  
Key;  
Thou wilt canst trust Him, and bide pa-  
tiently.

—Selected.

PRESERVING BEEF.—I wish someone would tell me how to preserve beef other than by drying.

MRS. GEO. HANSON.  
Linn Co., Mo.

Written for the RURAL WORLD.  
MY PREFERENCE.

I am very much interested in your paper and read it with pleasure, especially the Home Circle department. We have not heard from Liddy since she removed from the farm. Her six-room cottage, I smiled when I read she had left the farm, as by her letters I understood she liked farm life far better than living in the "muddy, dusty city." For myself I will take the city life. We have altogether too few pleasures on a farm, with any amount of hard work, toiling early and late, with little time to bestow on the better things of this world, wearied in body and mind, unable to concentrate our thoughts on things which would help us perhaps in our everyday affairs, and we say: "Well, I will wait; I shall comprehend better to-morrow." But to-morrow comes with its ceaseless round of toil, and yet we wait for the quiet time. Does it ever come? I have tried both, and I prefer to have the few pleasures which can only be had by living in or near the city.

Will some of the Home Circle readers be kind enough to send me either by mail or through the RURAL WORLD a complete formula for making the dry yeast cakes, such as are bought in packages in the groceries, but which are not always reliable, as you all know? I have quite a number of reliable recipes of cakes, salads, frozen dairies, puddings, etc., which I will gladly give if any one cares for them.

Jasper Co., Mo. "GENEVA."

WHEN THE HEART IS RIGHT.

Until you have learned to control your thoughts, you will never be able to live a godly and righteous life. As a man thinks in his heart, so is he; and it is because the thoughts that we entertain in our hearts are such worthless and vain ones that our words and acts often bring so heavy a disgrace on the name we love. Well might the wise man say, "Keep thy heart above all keeping, for out of it are the issues of life." When the heart is right the eye and the ear and the mouth and the foot will necessarily obey its promptings, but when the heart is wrong, filled with tides of ink, like the cuttlefish, it will develop itself in the impurity to which it gives vent. If you habitually permit things to have their right way through you, or lodging within you, remember that God's right way is the only right way, and those who indulge in evil acts, because you are withheld, not by your fear of Him, but by your desire to maintain your position among men.—Rev. F. B. Meyer.

BEDBUGH—Gwendolyn, Audrain Co., Mo., gives her method of ejecting this most unwelcome visitor. First scald the bedstead, then wipe it dry, putting a little coal oil on the varnished parts to restore the color. Take the white of one egg, adding five cents' worth of quick-silver, beating the mixture until stiff, apply with a feather, putting it in those places that a bug may be expected to find or go. See that the bedclothes and mattress are well cleaned of all eggs and bugs. It is well to take the mattress out where it can have boiling water poured over it, using care to have the corners well scalded.

GOOD RECIPES.  
CHOCOLATE CUSTARD.—Make a custard pie in the usual way and spread over it a chocolate frosting made as follows: Beat one egg to a stiff froth, add white sugar to thicken, half teaspoon vanilla and grated chocolate to suit the taste—one or two teaspoons.

HEAD CHEESE.—Boil the four heads, ears, feet, legs and any nice scraps trimmed from the hams of fresh pigs till the meat will drop from the bones; separate the bones from the meat; place in a chopping bowl; season with pepper, salt, sage and summer savory; chop coarsely; put it back into the kettle with just enough of the liquor to prevent it burning; mix thoroughly and while hot pour it into a strong muslin bag; press the bag between two flat surfaces with a heavy weight on or mould in square loaf; serve very cold cut in slices.

GOOD APPLE SAUCE.—Take nice tart apples, peel, core and quarter, put in a pan with half a cupful of water, cover closely and cook in the oven till the apples fall away and no lumps are left; add sugar to taste, cover again and set in the oven two or three minutes. Apple sauce cooked in this manner is much superior to that made on top of the stove, both in color and flavor.

PRUNE PUDDING.—Make a nice cornstarch pudding; add one cupful of prunes which have been cooked and pressed through a colander; also the whites of three or four eggs beaten stiff and one-half cupful of whipped cream; flavor to taste; place in a mould and set away to get very cold; serve with cream and sugar.

SAUSAGE.—Three pounds of lean, fresh pork, one pound of fat, chop fine and add six teaspoonfuls of sage, three teaspoonfuls of pepper, three teaspoonfuls of salt, one teaspoonful of cloves, if liked; mix these ingredients thoroughly; pack in a stone jar and pour hot lard over the top; keep in a very cold place well covered; when needed cut in slices or make into little cakes. It is more healthful and cheaper to keep a small sausage cutter

## Poultry Yard.

MISSOURI POULTRY ASSOCIATION.  
E. E. Coddington, President, Sedalia, Mo.  
Mrs. E. A. Creel, Secretary, Carrollton, Mo.

MISSOURI POULTRY MEETINGS AND SHOWS.

State poultry meeting and show at Fayette, Mo., December 10-14, 1900. Mrs. E. A. Creel, Carrollton, Mo., Secretary. North Missouri Poultry Show at Kirksville, Mo., December 17-19, 1900. F. M. Buckingham, Kirksville, Mo., Secretary. Grand River Valley Poultry Show at Auburn, Mo., December 19-21, 1900. R. R. French, Ford City, Mo., Secretary. Northeast Mo. Poultry Show at Bowling Green, Mo., December 24-26, 1900. L. T. Sanderson, Secretary.

ANOTHER LANGSHAN DEFENDER.

Editor RURAL WORLD: I was dumfounded when I read the criticism on Black Langshans made by Mrs. Geo. Hanson in the RURAL WORLD of Oct. 17. Mrs. Hanson has a perfect right to boom or boost the justly popular Plymouth Rocks or any other variety that she may take a fancy to, but she is not justified in doing it by tearing down the well earned reputation of another meritorious and popular breed. I, as well as every other breeder of Black Langshans, am willing to lose Mrs. Hanson from the Langshan fraternity if she is unable to appreciate the many good qualities the Langshans possess; and we will never, under any circumstances, try to pull down the Plymouth Rock in order to build up our favorite. I will say, however, that every good quality possessed by Mrs. Hanson's choice, is possessed by the Langshans, except they have not the yellow shank or legs, and are black. As to laying eggs, there is no variety on earth that will lay more eggs in winter than the Langshans, and as a table fowl there is none better. As an attractive show fowl it is up among the leaders.

One statement made by Mrs. Hanson I must refute as being untrue; and that is that the Langshans are so lazy that they do not keep the lice off. When any flock of fowls, I care not what the variety may be, get so many lice on them that they cannot keep them off, it is the owner's and not the fowl's fault. Whenever a flock of fowls is lousy you will always find the houses or their roosting quarters lousy. If the owner will do his part in keeping the roosts and houses clean and in providing a good dust bath, the fowls will do the rest.

There are more breeders of pure bred Langshans in Pike County, Mo., than any other variety. I have talked with a number of them within the last week, and every one of them agrees that the attack on this popular breed is uncalled for.

JOHN HETTING.

Pike Co., Mo.

A PENNSYLVANIAN'S OPINION.

Regarding the Black Langshan Controversy.

Editor RURAL WORLD: Someone may wonder at the contrary opinions as to the merits of the Langshan fowl as expressed in late issues of the RURAL WORLD. Now I believe both sides of the discussion be well founded, for I have had long experience not only with Langshans but with many other breeds, and know that just such characteristics will be found. That is why I nearly always answer: "It depends," when asked whether this or that breed or variety is a good one or at any rate desirable.

I started with Langshans in 1882-3 years ago last spring when the men who had them in their purity were very scarce. And I found then that they, like a good many other fowls, have to be kept growing right along from hatching to maturity to make best table fowls; they will then be meaty, tender and readily fattened at any age over five months. If let get poor and gaunt, they will develop ravenous appetites; seemingly never getting enough to satisfy them, and then not do well.

As winter layers, when properly reared and kept, the hens and pullets will be found excellent. I remember a flock of ten pullets I had at one time. These Langshans were wonderful layers of rich colored eggs, both as regards shell and contents. They are not readily overfed when laying right along.

Langshans are the lightest leg feathered of the Asiatics, excepting the clean-legged Javas, and as the middle toe should be clean, if properly bred, I do not know of any trouble in getting them to walk. Certainly they will get out a little easier than clean-legged breeds, but if given half a chance will not give any more trouble in this respect than will Minorcas or Spanish fowls.

Langshans should be hatched early in the spring and kept growing vigorously, so that by harvest they will be large enough to turn into the stubble fields to glean the lost wheat and oats. They will finish their growth in short order and at small expense and by November the pullets will be laying and the cockerels large enough to make fine Thanksgiving roasts.

As roasters they will be found to excel almost all other breeds. Perhaps the Cornish Indian game will lead them in quantity of meat, but will not be more finely grained, flavored or colored.

The great trouble with so many of the Langshans is the simple fact of their not being Langshans at all. The crane for them was so great at the time of their introduction that heavy drafts upon the flocks of Black Cochins were made to help out the Langshan orders for eggs and chicks. In fact many men bought a Langshan cockerel and mating him to ten or twelve Black Cochins pullets with light leg feathering, sold eggs and chicks to a gullible public as genuine Langshans. Then, too, they were bred too closely in account of persons buying a pair or trio or setting of eggs and never introducing new blood until their fowls became Langshan bantams and good for nothing.

Pennsylvania. GEORGE ENTY.

MRS. HANSON'S DEFENSE.

Editor RURAL WORLD: I said naught against the Langshans as layers, but I do maintain the P. Rocks are just as good layers. I have both breeds and have no wish to discriminate. They all get the same treatment and the P. Rocks are the equal of any large breed I have had to deal with when it comes to laying. Their eggs do hatch better for me than those of the P. Rocks, but I do not attempt to advise those who have reared both breeds and shipped coops of P. Rocks and Langshans separate and noted the difference in prices per pound; but let me say a few words to those who wish to engage in chicken raising for profit—those who wish to reach the markets direct—say Chicago, New York, Boston, you will find the P. Rocks away ahead of both breeds and Brahmas either. Why? Because the

two breeds last mentioned dress white and, and with sharp breast bones, which no amount of our western way of feeding has ever been able to overcome.

I am feeding 56 capons for our capon shipper in this county, and were they the P. Rocks I would have received a larger profit on the feed.

The Langshans seem just as hardy for me as any breed I have ever tried, but as was admitted by one of my critics, they develop so slowly that it will cost more to make as good capons as will the P. Rocks, and will require a longer time to do it in. I cannot compare breeds by my neighbors' way of handling hens. I find some people handling even the Cochins and doing well in the egg business, while others say the Leghorns are over-estimated in regard to eggs.

I am of the opinion the hen business is in its infancy on many farms. As for sitting hens, the one which would sit, sit, sit, would not strike me favorably, as I use an incubator.

That is the fault of the P. Rocks. They sit on and on. I have been successful in checking Langshans in a few days. Our capon contractor in this county is a man who does thousands of dollars worth of business in the chicken trade. He reaches the big markets of the United States and the best breed, he says, is the P. R. After that the cross between the games and P. R. makes the finest capon.

MRS. GEO. HANSON.  
Linn Co., Mo.

WINTER EGG PRODUCTION.

After it has been decided that conditions are favorable to profitable winter egg production, assuming that the wayfarer individual has adequate room in a properly constructed house and stocked with hens that still retain their youth and a disposition to lay eggs, there are a number of things to observe and to avoid, writes a correspondent in the "Stockman and Farmer."

Winter egg laying is unnatural and it is necessary to work on the hen's imagination by supplying summer conditions. And this involves much work. It's a well worn path that leads to the hen house where winter eggs are found. The house must be warm—must be! But it is not enough to have a warm house. The hens must be made to stay in it. Hens will leave the brightest and most comfortable house in the roughest weather if allowed to do so; but you can't do much with the imagination of a hen that wades all day in snow and icy mud.

North of the 40th parallel there are few days from December to the latter part of February when hens should be allowed outside of their houses. It is this almost constant confinement that makes egg production difficult.

THE FEEDER MOST IMPORTANT.—In the line of feeding, success depends more on the feeder than on the fed. Some men can feed whole corn and get more eggs than some others who get it more fed mince pie. Hens must have what they like, mixed with much judgment as to how much they get and when they get it. And that is the secret of winter eggs.

The beginner is apt to attach an exaggerated importance to variety in feeding and he gets up home mixing feed formulas so long and complicated that the attendant cannot feed without a recipe book. Some variety is desirable, but there is no real need of running the whole length of the feed alphabet from alfalfa to alfalfa.

The usual reason given for these complicated feed tables is the necessity of a balanced ration. And this is true. But so many items figured down to such mathematical exactness that the hens get nothing to eat but compound fractions. I am in sympathy with a balanced ration when it is balanced rationally. The chicken to eat the quantity of food that after all the place to study hen feeding is not the chemical laboratory but the hen house.

CORN IS ESSENTIAL.—For the staff of life the hen demands corn; and the hen's instinct is a good deal more scientific than some people's reasoning. It is safe to feed corn once a day the year around, varying the quantity, however, with different seasons. When hens are confined I usually give a half feed of corn in the morning, and in the afternoon a mash, but when I can get "run of the mill" I seldom add anything but animal meal and salt mixing with milk when I can get it and adding cayenne pepper when it seems advisable. In bitter cold weather I substitute molasses for the mash.

Hens in confinement must be induced to give some attention to physical culture. This is about as important as feeding itself. Scattering small grain or cracked corn at intervals during the day is indispensable. There are many other ways for inducing exercise varying with each man's conditions and facilities and it is hardly worth while to occupy space with details of this.

ANIMAL FOOD AND GREEN FOOD.—Green food, oyster shells and ground bone and grit should be provided in abundance. And water should be kept in a liquid state so that it will never be necessary to stop the egg machinery to thaw ice or snow.

And when all else is done, and well done, and the hens won't lay, then use cayenne pepper. This must be used with a measure of caution and should be given very sparingly to next spring's breeding stock.

F. M. SHROUT, McLean, Ill., places his turkey adv. in this issue. He reports that he has an excellent lot of birds on hand. He will be pleased to hear from those wanting anything in his line. Look up his advertisement.

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